

## CONNECTIVITY: WAN PRODUCTS

*The Model 1053AS miniature high-speed digital modem offers multi-rate Async/Sync speeds to 115.2/128 kbps with transparent modem signal controls. This 2-wire full-duplex modem uses 2B1Q modulation for superior noise immunity.*

## High Speed Serial Extender

### Patton Model 1053AS

**P**atton's Model 1053AS is a long-range powered, digital modem that operates synchronously or asynchronously at full duplex over a single twisted pair. The Model 1053AS utilizes 2B1Q modulation for superior signal strength even in the noisiest environments. RS-232 serial connections with speeds of 128 kbps can now be extended to distances over 5 miles (8 km) without the use of repeaters! Using ordinary voice-grade wire, the 1053AS Serial Extender provides a cost-effective solution for high speed, dedicated end-to-end connections with synchronous line rates up to 128 kbps and asynchronous line rates up to 115.2 kbps that include RTS, CTS and DCD modem signals.

The Model 1053AS modem's miniature size allows for a direct connection to your transmission devices serial port. Two 8-position DIP switches are located at the bottom of the unit to allow the configuration of various asynchronous or synchronous line rate settings. Additionally, LEDs are conveniently located on the side of the Model 1053AS to provide at-a-glance status indication of the unit.

For more information, visit us at [www.patton.com](http://www.patton.com).

#### Multi-Rate Speeds

*Full-duplex synchronous rates to 128 kbps and asynchronous rates to 115.2 kbps.*

#### Noise Immunity

*The 1053AS uses 2B1Q for improved performance in noisy environments.*

#### Pass RS-232 Control Signals

*Transparently passes CTS, RTS, and DCD over the 2-wire line.*

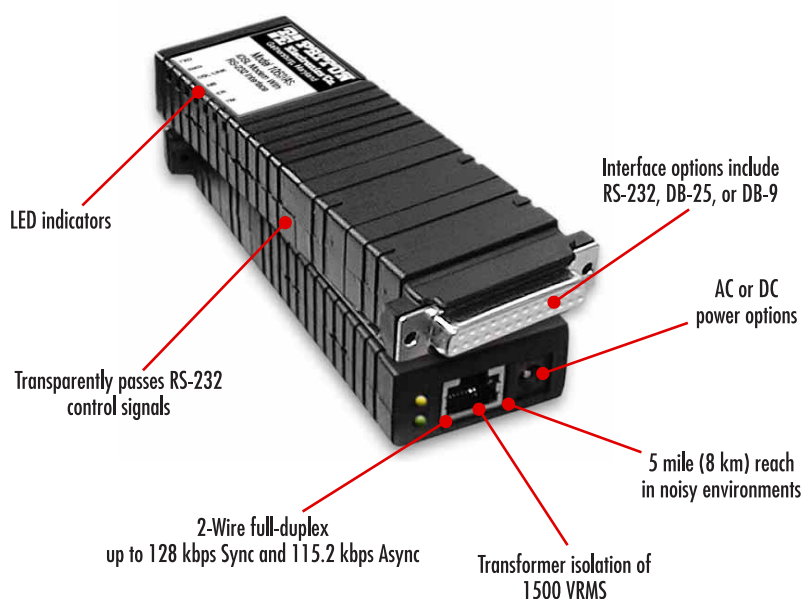
#### Long Reach

*Industry leading distances of over 26,000 feet (8 km) without repeaters.*

#### Power Options

*Universal AC power (90–260 VAC) as well as -12, -24, & -48 VDC.*

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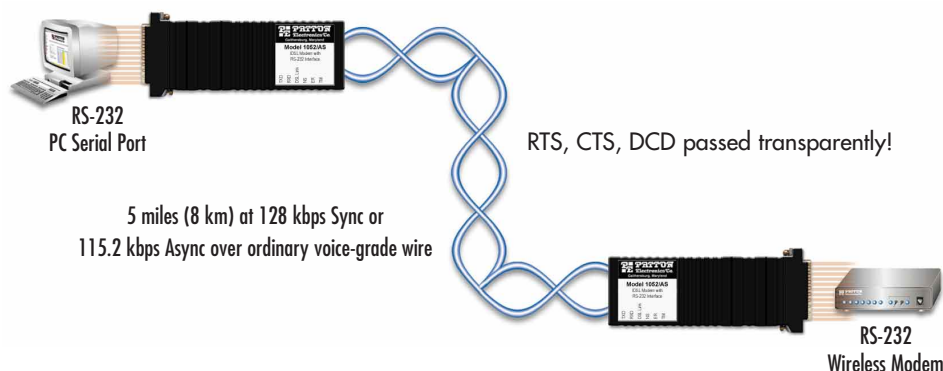


## Features

- ✓ Extends serial devices up to 5 miles (8 km) over ordinary grade twisted pair
- ✓ Miniature size for direct connections to your serial port
- ✓ 2B1Q modulation enhances signal immunity in noisy environments and increases the distance of RS-232 signals.
- ✓ Multiple user-configurable asynchronous and synchronous rate options
- ✓ Transparently passes RS-232 control signals over the link.

## Typical Application

The Patton Model 1053AS offers premium performance using the most common, inexpensive cabling infrastructure in the world, voice-grade telephone wire. Using 2B1Q modulation a serial port can be extended to distances of over 5 miles (8 km).



## Specifications

<b>Clocking</b>	Internal, external, or receive recover.	<b>Weight</b>	2.01 lbs. (<1.0 kg)
<b>Line Coding</b>	2B1Q conforming to ANSI T1.601 and ETSI ETR-080 standards.	<b>Compliance</b>	<b>EMC</b>
<b>Line Interface</b>	RJ-45; Two-wire twisted-pair using pins 4 & 5; Transformer coupled 1500 VRMS isolation		<ul style="list-style-type: none"> <li>• FCC Part 15, subpart B, class A (US)</li> <li>• EMC Directive 89/336/EEC (EU)</li> <li>• ICES-003 (Canada)</li> <li>• AZ/NZS 3548 (Australia C-Tick)</li> <li>• CISPR 22 (International)</li> </ul>
<b>Maximum Line Distance for All Data Rates</b>	10.1 miles (16.4 km) on 19 AWG (0.9 mm) wire 7.2 miles (11.5 km) on 22 AWG (0.64 mm) wire 5.0 (8 km) on 24 AWG (0.5 mm) wire 3.4 (5.5 km) on 26 AWG (0.4 mm) wire		<b>Safety</b>
<b>Serial Interface</b>	DB-25 Female or DB-9 Female depending on model ordered.		<ul style="list-style-type: none"> <li>• UL 60950/CAN-CSA-C22.2 60950 (Safety—US/Canada)</li> <li>• EN 60950 (Safety—Europe/International)</li> </ul>
<b>Serial Data Rates</b>	<b>Synchronous:</b> 32, 56, 64, and 128 kbps <b>Asynchronous:</b> 38.4, 57.6, 76.8, and 115.2 kbps	<b>Environment</b>	<b>Operating temperature:</b> 32–122°F (0–50°C) <b>Humidity:</b> 5–95% non-condensing <b>Altitude:</b> 0–15,000 feet (0–4,572 meters)
<b>LED Indicators</b>	TXD, RXD, Link, NS (no signal), ER (CRC error)		
<b>Power Supplies</b>	External wall-mount power supply with universal 90–260 VAC input or -12, -24, and -48 VDC input		
<b>Dimensions</b>	5.18L x 1.69W x 0.75H in. (13.16L x 4.29W x 1.91H cm)		



7622 Rickenbacker Drive  
Gaithersburg, MD 20879 USA  
Phone **+1-301/975-1000**  
Fax **+1-301/869-9293**  
E-mail **marketing@patton.com**  
URL **http://www.patton.com**